Clay Spur Bentonite Plant and Camp, Refining Mill HAER No. WY-23-0
Clay Spur Siding on the Burlington Northern
Railroad
4 miles northwest of Osage
Weston County
Wyoming

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
U. S. Department of the Interior
P. O. Box 25287
Denver, Colorado 80225

HISTORIC AMERICAN ENGINEERING RECORD

Clay Spur Bentonite Plant and Camp, Refining Mill

HAER No. WY-23-O

Location: Clay Spur Siding on the Burlington Northern Railroad, 4 miles northwest of Osage in Weston County, Wyoming

Dates of Construction: Unknown

Present Owner: N. L. Baroid
Alzada Star Route
Belle Fourche, South Dakota

Present Use: Abandoned; site to be razed

Significance: The Clay Spur Bentonite Plant and Camp is associated with the early 20th century bentonite mining industry in Wyoming and the United States. The Clay Spur Bentonite District was the center of the pioneer Wyoming bentonite industry and remained the premier Wyoming producing district until reserves began to dwindle in the 1950s. The plant embodies the distinctive engineering technology of the bentonite industry. The camp also reflects early twentieth century company town architecture with simple buildings and floor plans that could be quickly and cheaply constructed and adapted to many different uses.

The refining mill consists of several interconnected buildings, tanks, hoppers, and machinery used in the bentonite refining process. The main line of the Burlington Northern Railroad parallels the southwest elevation of the plant, and a spur line or siding parallels the northeast elevation. Starting from the northeast, the first component is a tall ribbed steel gable-roofed building (46.5 feet northwest-southeast by 20 feet northeast-southwest) used for unloading railroad cars. The siding runs through the building, and there is a tall sliding door on the northwest and southeast elevations of the building. The interior has a steel bumper and below-track hopper into which the contents of the cars were dumped. When the nearby bentonite pits were still being mined, the company had a system of narrow gauge tracks and ore cars that led to this facility. Raw bentonite was unloaded on a raised rail tram. This portion of the mill was modified to accommodate standard gauge rail cars bringing in bentonite from distant claims.

To the southwest of the above component is the crude crushing and drying plant. Wet bentonite passed through clay slicers that cut the material in pieces, three inches or less in diameter. Drier bentonite passed through rollers that broke down the materials. The pieces were then dried in large rotary oil-fired dryers. The dryers are still in place, mounted on concrete piers the length of the buildings from northeast to southwest. These facilities are housed in two side-by-side steel gable-roofed buildings with steel I-beam construction and concrete foundations and floors. A tall steel storage tank (the green tank) rises above the overall roofline and is located in the southeast portion of this facility. Two large round hoppers are located along the southeast side of this portion of the facility. A third hopper has fallen over or has been partially disassembled and a fourth has been removed. These hoppers were the finished products tanks. Some of the machinery in Mill Nos. 1, 2, and 3 in, the more southeasterly elongated building, has been removed, leaving only the concrete mounts.

The packer plant and warehouse are located in a long narrow building (168 feet northwest-southeast by 22 feet southwest-northeast) that parallels the railroad tracks. It is a one-story gable-roofed ribbed steel building with a raised concrete foundation and floor. There are three loading docks evenly spaced in the southwest elevation. The building is divided into two sections. The southeast portion is empty and appears to have been used for storage of bagged bentonite. The northwest portion contains a conveyor belt facility extending to a loading dock.

There are four large round metal dry storage tanks located at the northwest end of the packing plant. Apparently, they were used for storing dry unpulverized bentonite. There is a tall rectangular steel tower with a gable roof that rises above these tanks, located in a central position. The tower is covered with corrugated metal sheeting. It appears that dried bentonite was loaded into the tanks from above by means of pipes and could be unloaded to waiting trucks by means of an external pipe.

The packing plant and dry unpulverized storage area have remained essentially the same on the exterior since the plant was built. Early photographs show the same buildings, hoppers, storage tanks, and tower. The core of the drier building has also remained the same, with the original driers still in place.

There is another large warehouse located northwest of the storage tanks parallel to the railroad tracks that was added to the plant after 1940. It consists of a one-story wood frame gable-roofed building (60 feet northwest-southeast by 31 feet southwest-northeast) covered with corrugated metal sheeting. It rests on a concrete foundation and has a concrete floor. There are overhead and sliding garage doors on the three exposed sides. The interior roof supports feature a system of wood and steel rod trusses.

Historian: Robert Rosenberg
Historical Consultant

July 1989

NOTE: For more information, see Clay Spur Bentonite Plant and Camp, HAER No. WY-23.